This session contained two papers. The first paper was titled <u>Generalized Environment for Application Development for Capturing</u>, <u>Editing and Coding Statistical Survey's Data</u> and was presented by Reina Marta Hanono from Rio de Janeiro, Brazil. The presentation discussed a single computer environment responsible for the whole survey collection and processing system. In this environment there is an application definition facility and an interactive test facility that helps the development of surveys and improves their efficiency.

The second paper was titled <u>Integrating Metadata with Survey Development in a CAI Environment</u> and was presented by Michael Colledge and Fred Wensing from the Australian Bureau of Statistics (ABS). The presentation discussed the Australian Bureau of Statistics' effort to manage data and metadata by means of a data warehouse that will improve processing efficiency. They also discussed the effort to redevelop the collection and processing of survey data by computer assisted interviewing (CAI) techniques.

The floor discussion opened with a question from William Winkler, U.S. Bureau of the Census. Mr. Winkler directed his question to Mr. Colledge and first commented that the data warehouse concept is a nice way to look at the overall survey process. But how does it improve cost, efficiency, and different ways of viewing data? Mr. Colledge responded by saying that as a result of the warehouse, people were seeing inconsistencies in the data that wouldn't have been seen without a warehouse. The warehouse makes data more available to customers. It's easier to classify data. The ABS is now discarding old data dissemination systems in favor of the warehouse because of the warehouse's efficiency.

Mr. Winkler then commented to Ms. Hanono that he could see how Brazil's survey computer environment was useful for adding new features and tools. But are the "program generators" she was talking about useful? Ms. Hanono said she wasn't sure if they would continue with program generators. Instead they were thinking about using other software packages and link tools together to replace the program generators.

Mr. Nichols from the U.S. Bureau of the Census had the next question. He asked Ms. Hanono why did Brazil go through its "own route" in survey processing? What did it cost in person-years? What kind of support are you getting? Do you get a lot of resistance? Ms. Hanono mentioned that the reason they went with their "own route" was that when developing a computer system, they were limited to the types of technology available to them. As a result, they had to use or develop their own tools using C. They now are finding it difficult to change.

Mr. Colledge responded to the same questions. He said that their effort to build a warehouse started several years ago. In 1990-91 for example, the ABS had several ideas for a warehouse and they turned to Dr. Bo Sundgren of Sweden for advice. He "crystallized" what they were thinking. After that they gathered the resources necessary to build a warehouse and by 1993 they instilled the thoughts in the organization that this was where we were headed and this will be a way of life. Mr. Wensing said it is a change in culture on how to process a survey.

Ms. Brownrigg from the U.S. Bureau of the Census then asked Ms. Hanono about system coding generation. How was text automatically generated in their system? Is it keyed and parsed? Ms. Hanono responded by saying that text was inputted keeping the phonetic sounds. The system would then do a special search based on phonetics.

Ms. Brownrigg then asked Mr. Wensing what kind of accommodations are you making for screen development for CATI/CAPI? How user-friendly will your screens be? Mr. Wensing said there would be a standard format for the screen and provide alternative forms.

Mr. Keller from Statistics Netherlands then asked Mr. Colledge how ABS was going to use their warehouse to define the surveys and their variables and inputs. Mr. Colledge responded by saying the warehouse contained a summary of all the important documents at ABS and was designed to include all elements of survey processing.